CONTENTS OF VOLUME 76

No. 1, April 1989

T. Kobayashi, T. Curstedt, G. Grossmann and B. Robertson (Sweden, Japan): Inhibition of exogenous surfactant in ventilated immature newborn rabbits 1

M.E. Lutcavage, P.L. Lutz and H. Baier (U.S.A.): Respiratory mechanics of the loggerhead sea turtle, *Caretta caretta* 13

P.B. Frappell and J.P. Mortola (Canada): Respiratory mechanics in small newborn mammals 25

K. Schmid and G. Böhmer (F.R.G.): Spectral composition of synchronized discharge of phrenic nerve activity in the rabbit and effects of pulmonary afferents 37

R.B. Banzett, R.W. Lansing, M.B. Reid, L. Adams and R. Brown (U.S.A.): 'Air hunger' arising from increased P_{CO_2} in mechanically ventilated quadriplegics 53

W.J. Mautz and C. Bufalino (U.S.A.): Breathing pattern and metabolic rate responses of rats exposed to ozone 69

A. Kawashima, K. Kubo, K. Hirai, S. Yoshikawa, Y. Matsuzawa and T. Kobayashi (Japan): Plasma levels of atrial natriuretic peptide under acute hypoxia in normal subjects 79

M. Soust, A.M. Walker and P.J. Berger (Australia): Blood flow to the respiratory muscles during hypercapnic hyperpnoea in the newborn lamb 93

M. Soust, A.M. Walker and P.J. Berger (Australia): Diaphragm $\dot{V}_{O_2}$, diaphragm EMG, pressure–time product and calculated ventilation in newborn lambs during hypercapnic hyperpnoea 107

L. Brondel, J. Rami, D. Riviere and J.P. Besombes (France): Alveolar phospholipids, hyperventilation and temperature of conservation of rat lungs 119

H. Malte and R.E. Weber (Denmark): Gas exchange in fish gills with parallel inhomogeneities 129

No. 2, May 1989

A.C. Hoffmeister, J.C. Jackson, K.A. Davis and W.E. Truog (U.S.A.): Effects of hyperoxia and dimethylthiourea on neonatal pulmonary hemodynamics in piglets 139

E. Keller, J. Kohl and E.A. Koller (Switzerland): Location of pulmonary stretch receptors in the guinea-pig 149

W.M. St. John, Q. Hwang, E.E. Nattie and D. Zhou (U.S.A.): Functions of the retrofacial nucleus in chemosensitivity and ventilatory neurogenesis 159

D.M. Band and R.A.F. Linton (U.K.): The effect of potassium and venous CO_2 loading on chemoreceptor firing in anaesthetized cats 173

E.E. Faridy and W.Z. Yang (Canada): Role of hyperventilation in hypoxia on lung growth in rats 179

J. Kister, B. Bohn, M.C. Marden and C. Poyart (France): Analysis of oxygen binding by *Xenopus laevis* hemoglobin: implications for the Root effect 191

L.A. Maginniss and D.L. Kilgore, Jr. (U.S.A.): Blood oxygen binding properties for the burrowing owl, *Athene cunicularia* 205

J.L. Williams, S.J. Everse and L.O. Lutherer (U.S.A.): Stimulating fastigial nucleus alters central mechanisms regulating phrenic activity 215

G.M. Malvin and M.P. Hlastala (U.S.A.): Effects of environmental O_2 on blood flow and diffusing capacity in amphibian skin 229

M.B. Thompson (U.S.A.): Patterns of metabolism in embryonic reptiles 243

M.I. Hersch, J.G. McLeod, P.M. Satchell, R.G. Early and C.E. Sullivan (Australia): Breathing pattern, lung inflation reflex and airway tone in acrylamide neuropathy 257

No. 3, June 1989

H. Kobayashi, B. Pelster, J. Piiper and P. Scheid (F.R.G.): Significance of the Bohr effect for tissue oxygenation in a model with counter-current blood flow 277

O. Mathieu-Costello (U.S.A.): Muscle capillary tortuosity in high altitude mice depends on sarcomere length 289

B.J.B. Grant and J.M. Canty, Jr. (U.S.A.): Effect of cardiac output on pulmonary hemodynamics 303

F. Moslehi, J.R. Ligas, M.A. Pisani and M.A. Farrell Epstein (U.S.A.): The unsteady form of the Bernoulli equation for estimating pressure drop in the airways 319

C. Hsiao, S. Lahiri and A. Mokashi (U.S.A.): Peripheral and central dopamine receptors in respiratory control 327

T.E. Dick and S.G. Kelsen (U.S.A.): Relationship between diaphragmatic activation and twitch tension to superimposed electrical stimulation in the cat 337

Y.R. Kou, D.T. Frazier and L.-Y. Lee (U.S.A.): The stimulatory effect of nicotine on vagal pulmonary C-fibers in dogs 347

B.J. Whipp, J.A. Davis and K. Wasserman (U.S.A.): Ventilatory control of the 'isocapnic buffering' region in rapidly-incremental exercise 357

J.P. Mortola and R. Rezzonico (Canada): Ventilation in kittens with chronic section of the superior laryngeal nerves 369

L. Daristotle and G.E. Bisgard (U.S.A.): Central-peripheral chemoreceptor ventilatory interaction in awake goats 383

D.J. Paterson, J.S. Friedland, D.O. Oliver and P.A. Robbins (U.K.): The ventilatory response to lowering potassium with dextrose and insulin in subjects with hyperkalaemia 393